CLAIMS

1. An apparatus for setting a transmission-rate parameter (RR*) for transmission of information units (IU) in a wireless communication system, comprising:

   - a total counter (1) for counting a total number (L_{seq}) of received information units (IU);

   - an error counter (2) for counting an error number (*SEC*) of received invalid information units (EIU);

   - a division unit (3) for dividing said error number (*SEC*) by said total number (L_{seq}), the division result being providable as a link-quality measure (*LQM*) at an output (5) of said division unit (3); and

   - a decision unit (4) for setting said transmission-rate parameter (RR*) by comparing said link-quality measure (*LQM*) with at least one predefined value ($TH_{RR>1}$, $TH_{RR>2}$, $TH_{RR>4}$, $TH_{RR>8}$) and defining said transmission-rate parameter (RR*) to assume a corresponding data rate.

2. Apparatus according to claim 1, wherein the link-quality measure (*LQM*) and/or the transmission-rate parameter (RR*) are/is sequentially updatable.

3. Apparatus according to claim 1, wherein the link-quality measure (*LQM*) is derivable iteratively increasing the total number (L_{seq}), preferably after $2^n * f$ counted information units (IU), with n = 0, 1, 2, ... and f a defined factor, preferably $f = 256$.

4. Apparatus according to claim 3, wherein the division is executable at an multiple of factor f automatically by a shift operation corresponding to n.

5. Apparatus according to claim 1 ~~and 2,~~ wherein the error number (*SEC*) is maintained between at least two subsequent updates of the link-quality measure (*LQM*).

6. Apparatus according to claim 1, wherein the division unit (3) comprises storage cells (6) having a shift control, or comprises a multiplexer having a static logic.

7. Apparatus of claim 1 further comprising a control unit (7) which controls the total counter (1), the error counter (2), the division unit (3), and the decision unit (4).

8. Apparatus according to claim 1, wherein the division unit (3) comprises the error counter (2).

9. Apparatus according to claim 1, wherein the decision unit (4) comprises at least one comparator (81, 82, 83, 84) and a derivation unit (11) for deriving from at least one output of said comparator (81, 82, 83, 84) the transmission-rate parameter (RR*).

10. Apparatus according to claim 1, wherein at least four predefined values ($TH_{RR>1}$, $TH_{RR>2}$, $TH_{RR>4}$, $TH_{RR>8}$) are preloadable thresholds which correspond to a data rate of 4, 2, 1, 0.5 or 0.25 Mb/s, respectively.

11. An adaptive variable data-rate system for transmitting data over an infrared link comprising an apparatus according to ~~the preceding claims~~ claim 1.

12. A method for setting a transmission-rate parameter (RR*) for transmission of information units (IU) in a wireless communication system, comprising the steps of:

- counting a total number (L_{seq}) of received information units (IU);

- counting an error number (*SEC*) of received invalid information units (EIU);

- dividing said error number (*SEC*) by said total number (L_{seq}) and providing the division result as a link-quality measure (*LQM*);

- comparing said link-quality measure (*LQM*) with at least one predefined value ($TH_{RR>1}$, $TH_{RR>2}$, $TH_{RR>4}$, $TH_{RR>8}$); and

- setting said transmission-rate parameter (RR*) depending on the result of the comparison.

13. Method according to claim 12, wherein the link-quality measure (*LQM*) and/or the transmission-rate parameter (RR*) are/is sequentially updated.

14. Method according to claim 12, wherein the link-quality measure (*LQM*) is derived after receiving a number of information unit (IU) that are multiples of 2^n, with n = 0, 1, 2, ... and preferably multiples of 256.

15. Method according to claim 12, wherein the information units (IU) are encoded by Pulse Position Modulation (PPM), preferably by L-slot PPM (L-PPM).

16. Method according to claim 12, wherein with the setting of the transmission-rate parameter (RR*) a data rate of information units (IU) is adapted to the link-quality measure (*LQM*).

17. Method according to claim 16, wherein the data rate depends on a repetition of information units (IU).

18. Method according to ~~one of claims 12 to 17~~ claim 12, being carried out by means of technical means, such as a computer program.

19. Computer readable program code means for causing a computer to effect a determination of a link-quality measure (*LQM*) in order to set a transmission-rate parameter (RR*) for transmission of information units (IU) in a wireless communication system, comprising the steps of:

- counting a total number (L_{seq}) of received information units (IU);

- counting an error number (*SEC*) of received invalid information units (EIU);

- dividing said error number (*SEC*) by said total number (L_{seq}) and providing the division result as a link-quality measure (*LQM*);

- comparing said link-quality measure (*LQM*) with at least one predefined value ($TH_{RR>1}$, $TH_{RR>2}$, $TH_{RR>4}$, $TH_{RR>8}$); and

- setting said transmission-rate parameter (RR*) depending on the result of the comparison.

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